

## WHAT IS CLAIMED IS:

1. A method of treating diseases mediated by transglutaminase comprising administering to a patient in need thereof an effective amount of a transglutaminase inhibitor.
2. A method in accordance with claim 1, wherein said disease mediated by transglutaminase is a neurodegenerative disease presenting aggregated polyQ protein.
3. The method in accordance with claim 1, wherein said disease is selected from the group consisting of Huntington's Disease, spinobulbar atrophy, spinocerebellar ataxia, and dentatorubralpallidoluysian atrophy.
4. A method in accordance with claim 1, wherein said disease mediated by transglutaminase is a cell-mediated autoimmune disease.
5. A method in accordance with claim 4, wherein said disease is rheumatoid arthritis, multiple sclerosis, or insulin dependent diabetes mellitus.
6. A method in accordance with claim 1, wherein said disease mediated by transglutaminase is an inflammatory disease of the central nervous system.
7. A method in accordance with claim 6, wherein said disease is multiple sclerosis.
8. The method according to any of claims 1-7, wherein the transglutaminase inhibitor is selected from the group consisting of monodansyl cadaverine, cystamine, putrescine, gamma-amino benzoic acid, N-benzyloxy carbonyl, 5-deazo-4-oxonorvaline p-nitrophenylester, glycine methyl ester,  $\text{CuSO}_4$ , and tolbutamide.

9. Use of pharmaceutical compositions comprising a pharmaceutically acceptable carrier and a transglutaminase inhibitor, for treating diseases mediated by transglutaminase activity.

10. Use of pharmaceutical compositions comprising a pharmaceutically acceptable carrier and a transglutaminase inhibitor, for treating neurodegenerative diseases presenting aggregated polyQ proteins.

11. Use of pharmaceutical compositions according to claim 10 wherein the disease is selected from the group consisting of Huntington's Disease and spinobulbar atrophy.

12. Use of pharmaceutical compositions comprising a pharmaceutically acceptable carrier and a transglutaminase inhibitor, for treating inflammatory diseases of the central nervous system.

13. Use of pharmaceutical compositions comprising a pharmaceutically acceptable carrier and a transglutaminase inhibitor, for treating a cell-mediated autoimmune disease.

14. Use of pharmaceutical compositions according to claim 13 wherein the disease is selected from the group consisting of rheumatoid arthritis, multiple sclerosis, and insulin dependent diabetes mellitus.

15. A method for treating diseases mediated by transglutaminase comprising introducing into an appropriate cell of a patient in need thereof DNA which is antisense to the DNA of the transglutaminase gene so as to inhibit the expression of the transglutaminase gene, or DNA encoding a transglutaminase inhibitor.

16. The method according to claim 15 wherein the method for introducing the DNA is selected from the group consisting of receptor mediated gene delivery, transkaryotic implantation, viral shuttle vectors such as retroviral gene transfer, direct injection of non-infectious, non-oncogenic plasma DNA encapsulated in liposomes; immunoliposomes; and a liposome/red blood cell membrane hybrid.